What is Claimed is:

1. A wireless recharge system for electronic equipment comprising:

an energy source;

a power transmission unit operably connected to the energy source comprising:

a power transmitter functioning to transmit energy as a wireless power beam when activated;

a communication receiver configured to detect a power request signal and provide a request indication;

a power unit controller operably connected to the communication receiver and the power transmitter, the power unit controller responsive to said request indication to activate said power transmitter; and

a first power receiver system comprising:

an energy receptor configured to receive the wireless power beam;

an energy storage unit;

an energy beam converter that transforms energy from the received wireless power beam to an energy form compatible with said energy storage unit;

a power usage monitor operatively connected to said energy storage unit to detect a quantity of power stored in said energy storage unit; and

a power receiver system transmitter that produces the power request signal as a function of the quantity of power stored in said energy storage unit as detected by said power usage monitor.

2. The wireless recharge system of claim 1, wherein the power receiver system transmitter is connected to the power usage monitor

means to transmit said power request signal when the quantity of stored power falls below a predetermined level and terminates the said power request signal when the quantity of stored power is at or above the predetermined level.

3. The wireless recharge system of claim 1, wherein the power transmission unit comprises a signal tracking module to identify a location of origin of said power request signal and a power transmitter aiming module to direct said wireless power beam at said location of origin.

4. The wireless recharge system of claim 1, further comprising a second power receiver system having second energy receptor configured to receive the wireless power beam wherein the power transmission unit transmits the power beam to both the first and second energy receptors.

5. The wireless recharge system of claim 1, wherein the wireless power beam is in the form of a plurality of discrete energy pulses.

6. The wireless recharge system of claim 1, wherein the power transmitter transmits said wireless power beam as a first discrete energy pulse, the first power receiver system verifies receipt of the first energy pulse to the power transmission unit and the power unit transmitter transmits a second discrete energy pulse only after verification.

7. The wireless recharge system of claim 1, wherein the power transmission unit comprises a two way fuse for terminating transmission of the power beam after a predefined quantity of energy has been transmitted unless the first power receiver system verifies receipt of the predefined quantity of energy to the power transmission unit.

8. The wireless recharge system of claim 1, comprising a two way fuse for terminating transmission of said power beam after a predefined quantity of energy has been transmitted unless the first power receiver system verifies receipt of the predefined quantity of energy to the power transmission unit, wherein the two-way fuse means comprises a piezoelectric element.

9. The wireless recharge system of claim 1, comprising a pathway sensor at least partially located in a path of the power beam, for terminating transmission of the power beam after a predefined amount of energy has been transmitted unless the first power receiver system acknowledges receipt of the predefined amount of energy to the power transmission unit.

10. The wireless recharge system of claim 1, wherein said energy beam converter transforms said power beam to a thermal energy form.

11. The wireless recharge system of claim 1, wherein the energy beam converter transfers energy from the power beam to a supply of a working fluid.

12. The wireless recharge system of claim 1, wherein the energy receptor and the energy beam converter comprise a rectenna that converts at least part of said power beam into electricity.

13. The wireless recharge system of claim 1, wherein the energy receptor and the energy beam converter comprise an enclosed energy receptor for receiving the power beam and transforming energy in the received power beam to said energy form compatible with said energy storage unit.

14. The wireless recharge system of claim 1, wherein the energy receptor and the energy beam converter comprise a plurality of different energy receptors for receiving the power beam.

15. The wireless recharge system of claim 1, wherein said power request signal is a directional signal.

16. The wireless recharge system of claim 1, wherein said power request signal is a general broadcast signal.

17. The wireless recharge system of claim 1, wherein the power receiver system transmitter alternates between a directional power request signal in a single direction and a general broadcast power request signal in a plurality of directions.

18. The wireless recharge system of claim 1, wherein said power transmitter includes a communication unit to transmit a power unit communication signal and the first power receiver system includes a power receiver system receiver to receive said power unit communication signal, the power request signal and the power unit communication signal providing for a two way communication link between the power transmission unit and the first power receiver system.

19. The wireless recharge system of claim 1, wherein the power transmitter includes a communication unit to transmit a power unit communication signal and the first power receiver system comprises a power receiver system receiver for receiving the power unit communication signal, the power request signal and the power unit communication signal providing a two way communication link between the power transmission unit and the first power receiver system, wherein said two-way communication link must be established before the power transmitter is activated.

20. The wireless recharge system of claim 1, comprising a proximity detector arranged to detect an object within a security zone adjacent the energy receptor, the proximity detector operably connected to the first power receiver system to end transmission of the power request signal when an object is detected in the security zone.

21. The wireless recharge system of claim 20, wherein the proximity detector is selected from the group consisting of a motion detector and a translocator signal.

22. The wireless recharge system of claim 1, wherein the power transmitter transmits the directional wireless power beam at a plurality of frequencies.

23. The wireless recharge system of claim 1, wherein the power transmission unit is mounted to an airborne vehicle and the power receiver system is included in an emergency beacon for a vehicle, said power beam providing energy for said emergency beacon.

24. The wireless recharge system of claim 1, comprising an appliance incorporating the power receiver system and connected to receive energy from said energy beam converter and said energy storage unit.

25. The wireless recharge system of claim 1, comprising an appliance incorporating the power receiver system and connected to receive energy from said energy beam converter or said energy storage unit.

26. A wireless recharge system comprising:

an energy source;

a plurality of power transmission units operably connected to the energy source comprising:

a power transmitter configured to transmit energy as a directional wireless power beam when activated;

a communication receiver configured to detect a power request signal and provide a request indication;

a power unit controller operably connected to the communication receiver and the power transmitter, the power unit controller responsive to said request indication to activate said power transmitter; and

at least one appliance incorporating a first power receiver system comprising:

an energy receptor configured to receive the wireless power beam;

an energy storage unit;

an energy beam converter that transforms energy from the received wireless power beam to an energy form compatible with said energy storage unit;

a power usage monitor operatively connected to said energy storage unit to detect a quantity of power stored in said

energy storage unit; and

a power receiver system transmitter that produces the power request signal as a function of the quantity of power stored in said energy storage unit as detected by said power usage monitor,

wherein said plurality of power transmission units are incorporated into a structure at least partially surrounding said at least one appliance and providing said directional power beam to said appliance when the first power receiver system produces the power request signal.

27. The wireless recharge system of claim 26, wherein said structure defines an interior space and said plurality of power transmission units are secured to said structure so that said at least one appliance is exposed to a directional power beam from at least one said power transmission unit.

28. The wireless recharge system of claim 26, wherein at least one of said power transmission units includes a communication unit to transmit a power unit communication signal and the first power receiver system includes a receiver to receive said power unit communication signal, the power request signal and the power unit communication signal providing for a two way communication link between the at least one power transmission unit and the appliance.

29. The wireless recharge system of claim 26, wherein at least one power transmission unit includes a communication unit to transmit a power unit communication signal and the first power receiver system comprises a receiver for receiving the power unit communication signal, the power request signal and the power unit communication signal

providing a two way communication link between the power transmission unit and the first power receiver system, wherein said two-way communication link must be established before the power transmitter is activated.

30. A wireless recharge and communication system comprising:

an appliance equipped with a first power receiver system including a first information signal receiver and decoder;

an energy source;

a power transmission unit operably connected to the energy source and comprising:

a combination power transmitter and communication unit for wirelessly transmitting a combined directional energy beam and first information signal to the first power receiver system,

wherein said first information signal is received and decoded by said first power receiver system, said information signal permitting communication from said power transmission unit to said appliance.

31. The wireless recharge system of claim 30, wherein the first information signal originates from a signal source external to the power transmission unit and a communication interface connects the signal source to the power transmission unit.

32. The wireless recharge system of claim 30, wherein the appliance includes means for generating a second information signal and a wireless transmitter for encoding and sending said second information signal, said power transmission unit including a second receiver for receiving and decoding said second information signal, said first and second information signals permitting two-way communication between the power transmission unit and the appliance.

33. The wireless recharge system of claim 32, wherein the appliance is a cell phone, said signal source is a telephone network and said second information signal includes voice communications.

34. The wireless recharge system of claim 32, wherein the appliance is a computer, said signal source is the internet and said second information signal includes data from said computer.

35. A wireless power system comprising:

an energy source;

a power transmission unit operably connected to the energy source comprising:

power unit transmitter for transmitting energy as a wireless power beam to the first power receiver system, and

power unit controller operably connected to the power unit transmitter for controlling the power unit transmitter, and

a power unit communication transceiver for transmission of a first information signal and receipt of a second information signal; and

an appliance equipped with a first power receiver system comprising:

a power receiver system transceiver for receiving the first information signal from the power unit transceiver and transmitting the second information signal to the power unit transceiver.

36. The wireless power system of claim 35, wherein said appliance is an electric wheelchair.

37. The wireless power system of claim 35, wherein said appliance is a cell phone.

38. The wireless power system of claim 35, wherein said appliance is a weapon system.

39. The wireless power system of claim 35, wherein said appliance is a people mover.

40. The wireless power system of claim 35, wherein the first and second information signals provide a bi-directional communication link between the power transmission unit and the appliance.

41. The wireless power system of claim 35, wherein a communication interface connects a signal source external to the power transmission unit to the power transmission unit, the first information signal originates from the signal source and the second information signal is sent to the signal source.

42. The wireless power system of claim 35, wherein the first power receiver system comprises a translocator and the second information signal comprises a translocator signal.

43. A method for wirelessly recharging an appliance incorporating a power receiver system having an energy receptor comprising:

monitoring the condition of an energy storage unit arranged to provide power to said appliance to determine a quantity of energy stored in said energy storage unit;

monitoring a quantity of energy consumed by the appliance;

starting transmission of a power request signal from the appliance

as a function of the condition of the energy storage unit and the quantity of energy consumed by the appliance;

receiving the power request signal at a first power transmission unit;

transmitting a wireless power beam from a first power transmission unit to the energy receptor in response to receiving the power request signal;

stopping transmission of the power request signal from the appliance as a function of the condition of the energy storage unit and the quantity of energy consumed by the appliance; and

ending transmission of the wireless power beam when said power request signal is stopped.

44. The method of claim 43, comprising the step of:

stopping transmission of the power beam upon interruption of the power request signal.

45. The method of claim 43, wherein the step of starting transmission of the power request signal occurs when a level of energy in the energy storage unit is below a pre-established level; and the step of stopping transmission of the power request signal occurs when said level of energy is at or above said pre-established level.

46. The method of claim 43, wherein the step of transmitting a power request signal comprises transmitting a data stream and said step of receiving said power request signal comprises receiving said data stream.

47. The method of claim 43, comprising the steps of:

stopping transmission of the power beam after a predetermined

amount of energy has been transmitted;

acknowledging the receipt of the predetermined amount of energy by the power receiver system to the power transmission unit; and

starting transmission of the power beam for a subsequent predetermined amount of energy after the step of acknowledging.

48. The method of claim 43, wherein the wireless power beam is in the form of discrete energy pulses each containing a predetermined amount of energy.

49. The method of claim 43, wherein the wireless power beam is in the form of discrete energy pulses each containing a predetermined amount of energy and the power beam request signal comprises an acknowledgment of receipt of the predetermined amount of energy at the energy receptor and comprising the step of:

stopping transmission of the power beam in response to a failure to acknowledge receipt of the power beam.

50. The method of claim 43, comprising:

transmitting a power unit communication signal from the power transmission unit;

receiving the power unit communication signal at the power receiver system;

establishing a two way communication link between the power transmission unit and the power receiver system; and

stopping transmission of the power beam in response to a loss of the two-way communication link.

51. The method of claim 43, wherein the power receiver system is

moving relative to the first power transmission unit and comprising the step of:

tracking a location of the moving power beam request signal.